

WHAT IS CLAIMED IS:

## 1. A UV sensor comprising:

an incident light window constituting part of the wall of a container; and

5 a pin-type photodiode disposed inside said container and employed for photoelectrically converting the light that was transmitted through said incident light window, wherein

said incident light window is composed of  
10 Kovar glass and said pin-type photodiode comprises a photoabsorption layer formed from  $\text{In}_x\text{Ga}_{(1-x)}\text{N}$  ( $0 < x < 1$ ) between an n-type nitride semiconductor layer and a p-type nitride semiconductor layer.

2. The UV sensor according to claim 1, wherein  
15 said incident light window composed of Kovar glass is formed to have a thickness of 200  $\mu\text{m}$  or more.

3. The UV sensor according to claim 1, wherein the composition ratio  $x$  of the  $\text{In}_x\text{Ga}_{(1-x)}\text{N}$  in said photoabsorption layer is  $0 < x < 0.05$ .

20 4. The UV sensor according to claim 1, wherein the detection sensitivity of said light with a wavelength of 405 nm is not more than 1/100 of the detection sensitivity of said light with a wavelength of 365 nm..

FP03-0277-00

5. The UV sensor according to claim 1, which is used as a power meter of a light source for photolithography.